

## AMENDMENTS TO THE CLAIMS

Claims 1-9. (Canceled)

10. (Currently amended) A method of manufacturing a proppant, the method comprising the steps of: forming a sol-gel composition from ceramic precursors; and shaping and curing the sol-gel composition to form particulate sol-gel ceramic having a roundness and compressive strength suitable for use as a proppant; in which the sol-gel composition is a blend of aluminosilicates and aqueous solutions of alkali metal silicates, and wherein the forming, shaping and curing comprises: forming spheroidal pellets; smoothing the spheroidal pellets; and curing the spheroidal pellets.

11. (Previously presented) The method of Claim 10 wherein the aluminosilicates comprise geopolymers.

12-22. (Canceled)

23. (Currently amended) A proppant comprising a particulate composition which is a blend of aluminosilicates and aqueous solutions of alkali metal silicates, and further comprising a coating selected from the group consisting of an epoxy resin, a furan resin, a phenolic resin and a combination of resins.

24. (Previously presented) The proppant of Claim 23 wherein the particulate composition is a particulate sol-gel composition.

25. (Currently amended) A proppant comprising a particulate composition, wherein the particulate composition comprises a geopolymer, and further comprising a coating selected

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from the group consisting of an epoxy resin, a furan resin, a phenolic resin and a combination of resins.

26. (Previously presented) The proppant of Claim 25 wherein the particulate composition is a particulate sol-gel composition.

27. (Currently amended) A proppant comprising a sol-gel ceramic, wherein the sol-gel ceramic is unsintered and made by blending, forming, and curing at temperatures below 200°C, and further comprising a coating selected from the group consisting of an epoxy resin, a furan resin, a phenolic resin and a combination of resins.

28. (Previously presented) The proppant of Claim 27 wherein the sol-gel ceramic is unsintered and made by blending, forming, and curing at temperatures below 80°C.

29-32. (Canceled)

33. (Currently amended) A method of manufacturing a proppant, the method comprising the steps of: forming a composition from a geopolymer; and shaping and curing the composition to form a pellet; wherein the pellet has a roundness and compressive strength suitable for use as a proppant, and wherein the forming, shaping and curing comprises: forming spheroidal pellets; smoothing the spheroidal pellets; and curing the spheroidal pellets.

34. (Previously presented) The method of Claim 33 wherein the composition is a sol-gel composition.

35-41. (Canceled)

42. (New) A method of manufacturing a proppant, the method comprising the steps of: forming a sol-gel composition from ceramic precursors; and shaping and curing the sol-gel composition to form particulate sol-gel ceramic having a roundness and compressive strength suitable for use as a proppant; in which the sol-gel composition is a blend of aluminosilicates and aqueous solutions of alkali metal silicate, and comprising the further step of coating the proppant with a coating selected from the group consisting of an epoxy resin, a furan resin, a phenolic resin and a combination of resins.

43. (New) The method of Claim 42 wherein the aluminosilicates comprise geopolymers.

44. (New) A method of manufacturing a proppant, the method comprising the steps of: forming a composition from a geopolymer; and shaping and curing the composition to form a pellet; wherein the pellet has a roundness and compressive strength suitable for use as a proppant; comprising the further step of coating the proppant with a coating selected from the group consisting of an epoxy resin, a furan resin, a phenolic resin and a combination of resins.

45. (New) The method of Claim 44 wherein the composition is a sol-gel composition.